



PRODUCT DATA SHEET
321 HS UNDERCOAT
R1100/R3100 or R8100/R3100

Features & Uses

321 HS Undercoat is a low VOC, 1 coat epoxy finish primer. Utilizing an advanced resin technology and optimized pigment package 321 HS Undercoat can be applied as 1 coat with excellent flow and levelling properties previously unseen from high solids primers. With a VOC of just 340g/lit as applied and an easy-sand, long overcoating film 321 HS Undercoat is the ideal primer for all Awlgrip topcoats. Can be applied by spray, brush or roller.

Specification Data

Type: Low VOC Epoxy/modified aliphatic amine
Packaging: Available in 1 gallon containers (base), 1 quart container (converter), 1 quart kit (mixed 1 quart – White only)
Theoretical Coverage: 200 Sq. Feet/gallon (4.9m² / liter) at 5 mils (125 microns) dry film thickness.
Calculated for mixed base and converter

Recommended Wet Film Thickness: 8 mils (200 microns) applied in 1 coat

Recommended Dry Film Thickness: 5 mils (125 microns) applied in 1 coat

Coverage calculations are based on theoretical transfer efficiency of 100%. Actual coverage rate obtained will vary according to equipment choice, application techniques, part size, and environment

Recoatability at 77°F (25°C):

Minimum without sanding:	With itself:	1 hour
	With topcoat:	24 hours
Maximum without sanding:	With itself:	6 months*

Maximum after sanding: With topcoat: 3 months*

Sanding is recommended before overcoating with topcoat. For optimal appearance, 321 HS Undercoat should be left to dry for at least 72 hours before sanding and topcoating; the longer the curing time, the better the finish.

* Ensure surface is clean and dry prior to recoating.

VOC:

White Base (R8100)	232 g/lit or 1.9 lbs/gallon
Gray Base (R1100)	232g/lit or 1.9 lbs/gallon
Converter (R3100)	663g/lit or 5.5 lbs/gallon
Mixed components (as supplied)	340g/lit, 2.8 lbs/gallon

Product Components, Reducers, Additives, and Auxiliary Components

White Base R8100
Gray Base R1100
Converter R3100
Reducer T0006, T0176 (NA Only)
Equipment Cleaning T0006, T0176, Acetone or M.E.K

DO NOT add Cold Cure Accelerator (M3066) to 321 HS Undercoat

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Application Equipment

BRUSH AND ROLLER

Brushes must be recommended for use with solvent containing epoxy or urethane coatings. Natural bristle brushes work best. Do not use products recommended for water based coatings. Roller covers have similar requirements. They can be either foam or conventional mohair type, but must be solvent resistant.

Corona Brushes (813-885-2525) and Redtree Industries (973-481-0200) are good sources for brushes and roller covers. The Corona Urethamer or Redtree Chinese Ox would do a good job with 321 HS Undercoat

Brush/roller application is not recommended over large areas due to appearance reasons. Brush/roller application is suitable for stripe coating and small areas only.

SPRAY EQUIPMENT

Pressure Pot System

Tip Size: 1.6-1.8 mm

Pressure at Tip: To match flow rate

Fluid Flow: 250-300g/min

Gravity Fed System

Tip Size: 1.6-2.0 mm

Pressure at Tip: 2.5 Bar (36 psi)

Fluid Flow: 250-300g/min

WARNING: High pot pressure could cause adverse coating defects. Air Assisted Airless should not be used at higher pressures/flow rates than specified here. Contact Technical Service Representative for further advice.

Air Assisted Airless System

Tip Size: #6

Pressure at Tip: 1.8 Bar (26 psi)

Fluid Flow: 250-300g/min

Surface Preparation

Fiberglass/Gelcoat Substrates: Sand with 100-150 grit paper. See Application Guide for further information.

Aluminum Substrates: Sandblast or grind to a 2-3mils (50-75µm) profile, 100% clean silver color. Alternatively, on small parts/components, prime with Wash Primer CF. Apply product within 8 hours of completion of surface preparation. See Application Guide for further information.

High Build/Ultra Build Substrates: Sand with 240 or finer grit paper.

Sanding: Can be sanded after 16 hours (77°F/25°C). Once fully cured, 321 HS Undercoat should be sanded to a smooth surface using 320 or finer grit paper. The final film should be free of texture. Powdered guide coats can be used if required to ensure sanding is thoroughly completed.

Mixing and Reduction

Thoroughly stir base component before mixing with converter

Spray/Brush/Roll: Mix by volume three parts of base to one part of converter e.g. 3 : 1, R8100 or R1100 : R3100.

Induction Time after Mixing: N/A

Mix base and converter thoroughly to achieve a smooth, homogenous mixture.

Reduction: Not normally necessary but up to 15% of T0006 or T0176 can be added where VOC regulations allow.

Pot Life at 77°F (25°C)/50% R.H: approx. 1.25 hours, 60°F (15°C)/50% RH: approx 1.5 hours, 95°F (35°)/50% R.H approx 0.75 hours. Higher temperatures may shorten pot life.

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Application Instructions

Spray Application:

Apply a single coat of 321 HS Undercoat in one even coat of 8 mils (200 microns) wet film thickness yielding 5 mils (125 microns) DFT. Further coats should not be required.

Brush or Roller Application:

Apply 2 coats at 3 mils (75 microns) WFT yielding 2 mils (50 microns) DFT per coat. Allow 8 hours between coats at 77°F (25°C). Light sanding between coats will improve appearance. For large surfaces rolling, then tipping with a brush is preferred.

WARNING:

Do not apply paint materials to surfaces less than 5°F (3°C) above dew point, or to surfaces warmer than 105°F (41°C). Ambient temperature should be minimum 50°F (10°C) and maximum 105°F (41°C).

The information in this Product Data Sheet is not intended to be exhaustive. Any person using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk and, to the extent permitted by law, we can accept no responsibility for the performance of the product or for any loss or damage arising out of such use. The information contained in this Product Data Sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

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